

Title (en)  
DIRECTIONAL BACKLIGHT UNIT, THREE-DIMENSIONAL (3D) IMAGE DISPLAY APPARATUS, AND 3D IMAGE DISPLAYING METHOD

Title (de)  
DIREKTIONALE RÜCKBELEUCHTUNGSEINHEIT, VORRICHTUNG ZUR ANZEIGE VON DREIDIMENSIONALEN (3D) BILDERN UND VERFAHREN ZUR ANZEIGE VON 3D-BILDERN

Title (fr)  
UNITÉ DE RÉTROÉCLAIRAGE DIRECTIONNEL, AFFICHEUR D'IMAGE TRIDIMENSIONNELLE (3D) ET PROCÉDÉ D'AFFICHAGE D'IMAGE 3D

Publication  
**EP 3273688 A1 20180124 (EN)**

Application  
**EP 17157838 A 20170224**

Priority  
KR 20160008910 A 20160125

Abstract (en)  
A directional backlight unit, a three-dimensional (3D) image display apparatus, and a 3D image displaying method are provided. The directional backlight unit includes a light guide plate having an emission surface on which a plurality of grating elements including first and second groups of grating elements are provided. The plurality of grating elements are arranged such that light beams emitted from the first and second groups of grating elements commonly propagate through a plurality of pixel points and respectively form first and second groups of view points of which corresponding regions do not overlap with each other.

IPC 8 full level  
**G02B 30/33** (2020.01)

CPC (source: CN EP US)  
**G02B 6/005** (2013.01 - US); **G02B 30/27** (2020.01 - US); **G02B 30/33** (2020.01 - CN EP); **G03H 1/0808** (2013.01 - EP US);  
**G03H 1/2294** (2013.01 - EP US); **G06F 17/142** (2013.01 - EP US); **H04N 13/31** (2018.04 - US); **H04N 13/32** (2018.04 - EP US);  
**H04N 13/351** (2018.04 - EP US); **H04N 13/366** (2018.04 - US); **G03H 2210/30** (2013.01 - EP US); **G03H 2226/02** (2013.01 - EP US);  
**H04N 13/356** (2018.04 - EP US)

Citation (search report)  
• [I] WO 2014081415 A1 20140530 - HEWLETT PACKARD DEVELOPMENT CO [US]  
• [I] US 2012092763 A1 20120419 - SONG LEI [CN]

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

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BA ME

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**EP 3196773 A2 20170726; EP 3196773 A3 20170809**; CN 106997101 A 20170801; CN 106997101 B 20211203; EP 3273688 A1 20180124;  
EP 3273688 B1 20190529; KR 102526751 B1 20230427; KR 20170088690 A 20170802; US 10114225 B2 20181030;  
US 10627642 B2 20200421; US 2017212359 A1 20170727; US 2019033609 A1 20190131

DOCDB simple family (application)  
**EP 17151579 A 20170116**; CN 201710043234 A 20170119; EP 17157838 A 20170224; KR 20160008910 A 20160125;  
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